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March 7, 2003, 11:36:59; Search time 188 Seconds (without alignments) 768.323 Million cell updates/sec
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471
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GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                   Title:
Perfect score:
Sequence:
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Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

ZIP: 63105	COMPITTED PEADET BODM.	CONTROL NATION OF STATE	; COMPUTER: IBM PC compatible	OPERATING SYSTEM: PC-DOS/MS-DOS	SOFTWARE Patentin Release #1.0, Version #1.30	CORRECT AFFICATION DAIR	AFFLICATION NUMBER: US/US/91,858E	CILITY OFFICE.	CLASSIFICATION: 450	NAME: UCITAIN DOWNTO	NOTICE OF A MINISTER OF 10.1	ACCUSING TO WOMBER 33, 197	THE ENEMICE TO CARE IN UMBER 9/1485	TELECOMMULATION INFORMATION:	TELEPHONE: 314-/Z/-5188	; TELEFAX: 314-727-6092	; INFORMATION FOR SEQ ID NO: 203:	; SEQUENCE CHARACTERISTICS:	; LENGTH: 471 base pairs	TYPE: nucleic acid	; STRANDEDNESS: single	; TOPOLOGY: linear	MOLECULE TYPE: CONP.			Owary Watch 100 08. Common 171.	Deet 1000 Similariti 100 Os. 2001 4/1;	TOU.US; Fred. NO. 1.86-90;	marches 4/1; Conservative 0; Mismarches 0; Indels 0; Gaps		V A MAGGERGARAGE TECHNOLOGICAL CONTROL
		Description		200		Sequence 206 App	0	00	010	02	22	10	, a	90	2 5	, T C	ر د ر	,2,	Sequence 105, App	Sequence 105, App	Sequence 105, App	Sequence 131, App	31,	31,	77.	78.		00	34	34	;
ً عود		Match Length DB ID	100.0 471 4 IR-08-031-8588-203	471 4	471 4	471 4 (291 4	291 4	291 4	_	4	471 4 (53.1 471 4 US-08-931-858E-180	471 4	4	100	1 10 1		***	4.4	44.1 544 4 US-U9-128-026-105	4 6	4 5	559 4	723 4	44.1 723 4 US-08-931-858E-178	43.1 559 4 US-08-931-858E-188	4	559 4 (_	
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C C 293333333333333333333333333333333333		1 931-858E ence 203, nt No. 622 ERAL INFO PPLICANT: PPLICANT: PPLICANT: PPLICANT: PPLICANT: PPLICANT: PPLICANT: PPLICANT: PPLICANT: PPLICANT: STREET: STREET: STREET: STREET: G3DMESSEED: STREET: G1TY: STREET: G1TY: STREET:	Mat Loca es
	<i>1</i> 1.00000000000000000000000000000000000	RESULT Sequence Sequence Seque	Quers Best Match

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121 GTGGCAAAGGCTGGAGGGACCTGGCTGGGCACCGCCCCCTTGCCCGCCTGCGCCGA
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APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: KLEIN, ROBERT
APPLICANT: KLEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
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FILING DATE:
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ATORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELEPHONE: 314-727-5188
TELEPHONE: 314-727-5692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-08-931-858E-204/c
. Sequence 204, Application US/08931858E
. Petent No. 6222022
. GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 204:
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TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS: ADDRESSE: HOWELL & HAFERKAMP, L.C.
                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZIP: 63105
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/931,858E
                                                100.0%; Score 471; DB 4;
100.0%; Pred. No. 1.8e-90;
ive 0; Mismatches 0;
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7733 FORSYTH BOULEVARD, SUITE 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 205, Application US/08931858E Patent No. 6222022 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: LAMPE, PATRICIA A
APPLICANT: LEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
                                                                    Best Local Similarity 100.
Matches 471; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-08-931-858E-205
; MOLECULE TYPE
US-08-931-858E-204
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                                                  Query Match
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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
TELEFAX: 314-727-6092
INFORMATION FOR SEQ ID NO: 206: SEQUENCE CHARACTERISTICS:
LENGTH: 471 base pairs
TYPE: nucleic acid
STRANDEDUCES: Single
          PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                             99.3%;
                                                                                                                                                                                                                                                                                                                          Query Match 99.3
Best Local Similarity 99.6
Matches 469; Conservative
                                                                                                                                                                                                                                                                  TOPOLOGY: linear
MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                               US-08-931-858E-206
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                                                                                                                                                                                            Length 471;
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Sequence 206, Application US/08931858E

Patent No. 622022

Patent No. 622022

APPLICANT: JOHNSON, EUGENE M

APPLICANT: MILBRANTY, JEFFREY D

APPLICANT: LAMPE, PATRICIA T

APPLICANT: LAMPE, PATRICIA A

APPLICANT: LAMPE, PATRICIA A

APPLICANT: LESSUVAGE, FRED

APPLICANT: DESAUVAGE, FRED

TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR

WUMBER OF SEQUENCES: 239
                                                                                                                                                                                                                        Indels
                                                                                                                                                                                        99.3%; Score 467.8; DB 4;
99.6%; Pred. No. 8.3e-90;
11ve 0; Mismatches 2;
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7733 FORSYTH BOULEVARD, SUITE 1400
REFERENCE/DOCKET NUMBER: 9714
TELECOMMUNICATION INFORMATION:
TELERAN: 314-727-5188
TELERAX: 314-727-6092
INFORMATION FOR SEQ ID NO: 205:
SEQUENCE CHARACTERISTICS:
LENGTH: 471 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E: Floppy disk
IBM PC compatible
                                                                                                                                                                                                                  Matches 469; Conservative
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MEDIUM TYPE: Floppy of COMPUTER: IBM PC comp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
                                                                                                                              TOPOLOGY: linear MOLECULE TYPE: CDNA
                                                                                                                                                                                         Query Match
Best Local Similarity
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MO
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US-08-931-858E-205
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61 GGCTGGGGCCCCGATGCCCGTGGGGTTCCCGTGGCCGATGGAGAGTTCTCGTCTGAACAG 120
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Patent No. 6222022

GENERAL INFORMATION:

APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: LAMPE, PATLICIA A
APPLICANT: LAMPE, PATLICIA A
APPLICANT: LAMPE, PATRICIA A
APPLICANT: LAMPE, PATRICIA A
APPLICANT: PESSUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
RILLCATION NUMBER: US/08/931,858E FILING DATE:
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Pred. No. 8.3e-90;
0; Mismatches 2;
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linear
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                                                    63105
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US-08-931-858E-200/c

Sequence 200, Application US/08931858E

Sequence 200, Application US/08931858E

Septent No. 6222022

GENERAL INFORMATION:
APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDY, JEFREY D
APPLICANT: KOTEBAUBY, PAUL T
APPLICANT: KALEIN, ROBERT
APPLICANT: LAMPE, PATRICIA A
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61.8%; Score 291; DB 4; Length 291; 100.0%; Pred. No. 7e-53; 1.ve 0; Mismatches 0; Indels
                                                                                                                                  COMPUTER: IBM PC COMPALIAL
COMPATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/931,858E
FILING DATE:
CLASSIFICATION: 435
ATTORNEY AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
TELEPHONE: 314-727-5188
ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3: HOWELL & HAFERKAMP, L.C.
7733 FORSYTH BOULEVARD, SUITE 1400
                                                                                                                                                                                                                                                                                                                                            TELEFAX: 314-727-6092
INFORMATION FOR SEQ ID NO: 199:
                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 291 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 100.
Matches 291; Conservative
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                                                                            USA
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MOLECULE TYPE:
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US-08-931-858E-199
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                                                                          COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                111 GGCCCTGCTGCCGGCCCACTCGCTACACGACGTGGCCTTCCTCGATGACCGCACCGC 52
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Patent No. 622302
GENERAL INFORMATION:
APPLICANT: JOHNSON, EUGENE M
APPLICANT: LAMPE, PAIL T
APPLICANT: LAMPE, PAIL T
APPLICANT: LAMPE, PAIRTICIA A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61.8%; Score 291; DB 4; Length 291; 100.0%; Pred. No. 7e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/931,858E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
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7733 FORSYTH BOULEVARD, SUITE 1400
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                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 977
TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
TELEFAX: 314-727-6092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 314-727-6092
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 291 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity 100.
Matches 291; Conservative
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
CLASSIFICATION: 435
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291 GCCCTGTCTGGTCCATGCCAGCTGTGAGCCTGACCTGTCCGTGGCAGAGCTAGGCCTG 232
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 GCCCGCACCCAGCATGGCCTGGCGTGGCCCGGCTGCAGGGCCAGGGCCGAGGCCCACGGT 360
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 GCCCTGTCTGGTCCATGCCAGCTGTGGAGCCTGACCCTGTCCGTGGCAGAGCTAGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61.4%; Score 289.4; DB 4; Length 291; 99.7%; Pred. No. 1.5e-52; live 0; Mismatches 1; Indels 0
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APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: MOTZBAUGE, PAUL T
APPLICANT: KOTZBAUGE, PAUL T
APPLICANT: KLEIN, ROBERT
APPLICANT: LEANE, PATRICIA A
APPLICANT: DESAUVACE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:
      OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/931,858E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3: HOWELL & HAFERKAMP, L.C.
7733 FORSYTH BOULEVARD, SUITE 1400
                                                                                                                         ATTORNEY AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELECOMMUNICATION INFORMATION:
TELEPHONE: 314-727-6192
INFORMATION FOR SEQ ID NO: 202:
SEQUENCE CHARACTERISTICS:
LENGTH: 291 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-931-858E-222
; Sequence 222, Application US/08931858E
; Patent No. 6222022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 99.7
Matches 290; Conservative
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                                                                                                            CLASSIFICATION: 435
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                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-931-858E-202
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Patent No. 622002

GENERAL INFORMATION:
APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: LAMPE, PAUL I
APPLICANT: LAMPE, PARRICIA A
APPLICANT: KLEIN, ROBERT

APPLICANT: LEIN, ROBERT

APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR

WUMBER OF SEQUENCES: 239
CORRESPONDENCE HOWELL. E HAFERKAMP, L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421 TGGCAGCGGCTGCCCCAGCTCTCGGCGGCTGCCTGCGGGCTGTGGTGGCTGA 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                 COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
APPLICATION NUMBER: US/08/931,858E
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
61.4%; Score 289.4; DB 4;
Best Local Similarity 99.7%; Pred. No. 1.5e-52;
Matches 290; Conservative 0; Mismatches 1;
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7733 FORSYTH BOULEVARD, SUITE 1400
                                                                                                                                                   CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 971486
TELECOMUNICATION INFORMATION:
TELEPHONE: 314-727-5188
TELEFAX: 314-727-6092
INFORMATION FOR SEQ ID NO: 201:
SEQUENCE CHARACTERISTICS:
LENGTH: 291 base pairs
TYPE: nucleic acid
STRANDEDNESS: Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                              Length 267;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: KLEINFREY D
APPLICANT: KLEIN, ROBERT
APPLICANT: KLEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE: HOWELL & HAFERKAMP, L.C. STREET: 7733 FORSYTH BOULEVARD, SUITE 1400 SITY: ST. LOUIS STATE: MO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/08/931,858E
APPLICATION NUMBER: US/08/931,858E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-08-931-858E-179
; Sequence 179, Application US/08931858E
; Patent No. 6222022
; GENERAL INFORMATION:
                                                                                           971486
                        CLASSIFICATION: 435
ATOREY/ACENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35.197
REFERENCE/DOCKET NUMBER: 97146
TELECOMMUICATION INFORMATION:
TELEPHONE: 314-727-5188
INFORMATION FOR SEG ID NO: 222:
SEQUENCE CHARACTERISTICS:
LENTH: 267 base pairs
TYPE: nucleic acid
STANDEDNESS: single
STANDEDNESS: single
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CLASSIFICATION: 435
                                                                                                                                                                                                                               ; TOPOLOGY: 11near;
; MOLECULE TYPE: CDNA
US-08-931-858E-222
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61 GGCTGGGGGCCCCGATGCCCGTGGGGTTCCCGTGGCCGATGGAGAGTTCTCGTCTGAACAG 120
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APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBANDT, JEFFREY D
APPLICANT: MOTZBAGEN, PAUL T
APPLICANT: LAMPE, PATRICIA A
APPLICANT: KLEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                     Score 250; DB 4; I
Pred. No. 2.7e-44;
); Mismatches 120;
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STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 180, Application US/08931858E Patent No. 6222022
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REPERENCE/DOCKET NUMBER: 97148
TELECOMMUNICATION INFORMATION:
TELEFAX: 314-727-5186
TELEFAX: 314-727-5092
INFORMATION FOR SEQ ID NO: 179: SEQUENCE CHARACTERISTICS:
LENGTH: 471 Base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                     53.18;
illarity 73.48;
Conservative
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                                                                                                                                                                                                                                                                                        linear
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Best Local Similarity
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US-08-931-858E-180/c
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PERSEPHIN AND RELATED GROWTH FACTOR
                                                                                                                                                                      MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE: MO
                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/931,858E FILING DATE:
                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 9714
TELECOMMUNICATION INFORMATION:
TELECHONE: 314-727-5188
TELEFRAX: 314-727-6092
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                                                                                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 471 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 73.4
Matches 348; Conservative
                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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                              NUMBER OF SEQUENCES:
               INVENTION:
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                                                                                                                            USA
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                                                                                                                            COUNTRY:
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Best Local S
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                                                                                                                                                                                                                                                                                                                                                                                                                Score 250; DB 4; Length 47
Pred. No. 2.7e-44;
0; Mismatches 120; Indels
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/931,858E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 190, Application US/08931858E
Fatent No. 6222022
GENERAL INFORMATION:
APPLICANT: JOHNSON, EUGENE M
APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: LAMPE, PATRICIA A
APPLICANT: LAMPE, RED
                                                                                                                        CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 97148
TELEFOMMUTCATION INFORMATION:
TELEFAX: 314-727-5188
TELEFAX: 314-727-6092
TELEFAX: 314-727-6092
TELEFAX: 314-727-6092
TELEFAX: 314-727-6092
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 73.4%;
Matches 348; Conservative (
                                                                                                                                                                                                                                                                                                                              STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                              ; MOLECULE TYPE: CDNA
US-08-931-858E-180
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                                                                                                                   FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 12
US-08-931-858E-190
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                                                                     1 ATGGCCGTAGGGAAGTTCCTGCTGGGCTCTTGCTGCTCCTGTCCCTGCAGGTGGGACAG
                                                                                          238 CTGGGCTACGCCTCAGAGGAGAAGGTCATCTTCCGCTACTGCGCCGGCAGCTGCCCCGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                    418 CGCTGGCAGCGGCTGCCCCAGCTCTCGGCGGCTGCCTGCGGCTGTGGTGGTGGTGA 471
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Score 250; DB 4;
Pred. No. 2.7e-44;
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156 AGTGGCTGAGCTGGGCCTGGGCTATGCCTCGGAGGAGAAGGTCATCTTCCGATACTGCC 215
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418 CGCTGGCAGCGGCTGCCCCAGCTCTCGGCGGCTGCCTGCGGCTGTGGTGGCTGA 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LAMPE, PATRICIA A.
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS
NUMBER OF SEQUENCES: 176
CORRESPONDENCE ADDRESS:
                                                                                                               Indela
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/981,739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: HOWELL & HAFERKAMP, L.C. STREET: 773 FORSYTH BOULEVARD, SUITE 1400 CITY: ST. LOUIS STATE: MISSOURI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 44.1%; Score 207.6; DB 4; Best Local Similarity 79.4%; Pred. No. 1.9e-35; Matches 246; Conservative 0; Mismatches 64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE: 31-Aug-1998
CLASSIFICATION: <Unknown>
PRIOR APPLICATION NUMBER: PCT/US97/03461
APPLICATION NUMBER: PCT/US97/03461
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 976163
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; MOLECULE TYPE: DAN (genomic); SEQUENCE DESCRIPTION: SEQ ID NO: 175: US-08-981-739-175
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: JOHNSON JR., EUGENE M.
MILBRANDT, JEFFREY D.
KOTZBAUER, PAUL T.
                                                                                                                                                                                                                                                                                                                         Sequence 175, Application US/08981739 Patent No. 6232449 GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (314) 727-6092 INFORMATION FOR SEQ ID NO: 175: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 405 base pairs
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ZIP: 63105-1817
                                                                                                                                                                                                                                                         RESULT 14
US-08-981-739-175
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                                                                                                                                      APPLICANT: MILBRANDT, JEFFREY D
APPLICANT: KOTZBAUER, PAUL T
APPLICANT: LAMPE, PATRICIA A
APPLICANT: KLEIN, ROBERT
APPLICANT: DESAUVAGE, FRED
TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTOR
NUMBER OF SEQUENCES: 239
CORRESPONDENCE ** CAREFORD ** CORRESPONDENCE ** CAREFORD ** CORRESPONDENCE ** CAREFORD ** CAREF
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Pred. No. 2.7e-44;
0; Mismatches 120; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/931,858E
                                                                                                                                                                                                                                                                                                                                                                                                                                     3: HOWELL & HAFERKAMP, L.C.
7733 FORSYTH BOULEVARD, SUITE 1400
   Sequence 191, Application US/08931858E Patent No. 6222022 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 9714
TELEPHONE: 314-727-5188
TELEPHONE: 314-727-5092
                                                                                                            : JOHNSON, EUGENE M
: MILBRANDT, JEFFREY
: KOTZBAUER, PAUL T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   53.1%;
73.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 471 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
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Matches 348; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; MOLECULE TYPE:
US-08-931-858E-191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                       APPLICANT
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Gaps

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      282 CGGCAGCTGCCCCCGGTGGTGCCCGCACCCAGCATGGCCTGGCGCTGGCCCGGCTGCAGGG
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                                                                                                                                                                                                                                 APPLICANT: JOHNSON JR., EUGENE M.
APPLICANT: MILBRANDT, JEFFREY D.
APPLICANT: MILBRANDT, JEFFREY D.
APPLICANT: MANDE, PARTICIA A.
APPLICANT: LAMPE, PARTICIA A.
APPLICANT: LAMPE, PARTICIA A.
APPLICANT: LAMPE, PARTICIA A.
APPLICANT: LAMPE, PARTICIA A.
ADRESSE: HOWELL & HAFERKAMP, L.C.
STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
CITY: ST. LOUIS
STATE: MISSOURI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: ISM PC COMPATIBLE
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/128,026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match

44.1%; Score 207.6; DB 4;
Best Local Similarity 79.4%; Pred. No. 1.9e-35;
Matches 246; Conservative 0; Mismatches 64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFCATION:
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 976163
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314) 727-6992
INFORMATION FOR SEQ ID NO: 175:
SEQUENCE CHARACTERISTICS:
LENGTH: 405 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TYPE: MOLECULE TYPE: DNA (genomic)
US-09-128-026-175
                                                                                                                                                                                   ; Sequence 175, Application US/09128026
; Patent No. 6403335
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 63105-1817
COMPUTER READABLE FORM:
                                                               462 TGGTGGCTGA 471
                                                                                  396 TGGTGGCTGA 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
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US-09-128-026-175
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462 TGGTGCTGA 471

396 TGGTGGCTGA 405

Search completed: March 7, 2003, 13:11:44 Job time : 189 secs

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March 7, 2003, 11:32:18 ; Search time 313 Seconds
    (without alignments)
    3388.790 Million cell updates/sec
                                                                                                                                                                                                                                          1 ATGGCCGTAGGGAAGTTCCT......CCTGCGGCTGTGGTGGCTGA 471
GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                               2185239 seqs, 1125999159 residues
                                                                               using sw model
                                                                                                                                                                                                                                                                                   IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                 US-09-220-617B-203
                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                             OM nucleic - nucleic search,
                                                                                                                                                                                                   Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                             earched:
                                                                                                                      Run on:
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Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

15.1052/gcgdata/geneseq/geneseqn-embl/NA1981.bAT:*
15.1052/gcgdata/geneseq-geneseqn-embl/NA1981.bAT:*
15.1052/gcgdata/geneseq/geneseqn-embl/NA1985.bAT:*
15.1052/gcgdata/geneseq/geneseqn-embl/NA1985.bAT:*
15.1052/gcgdata/geneseq/geneseqn-embl/NA1987.bAT:*
16. \$51052/gcgdata/geneseq-geneseqn-embl/NA1987.bAT:*
17. \$51052/gcgdata/geneseq-geneseqn-embl/NA1989.bAT:*
18. \$51052/gcgdata/geneseq-geneseqn-embl/NA1991.bAT:*
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19. \$51052/gcgdata/geneseq-embl/NA1991.bAT:* /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:* /SIDS2/gcgdata/geneseq/geneseqn-embl/NA1980.DAT:*/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*/SIDS2/gcgdata/geneseqn-embl/NA1982.DAT:* N_Geneseq_101002:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Description	Human pre-pro pers W09914335 Seq ID N Human Persephin-AR Human Persephin-AR Human ovarian anti Human secreted pro Human secreted pro DNA encoding novel
SUMMARIES ID	AAX60507 AAX50503 AAZ50334 AAZ50337 AAZ50337 AAF97935 AAF97903 AAX60503
DB	20 21 21 22 22 23 20 20
% Query e Match Length DB I	471 471 556 556 974 974 1173
å Query Match	700.0 79.8 79.8 72.9 70.6 61.9 61.9
Score	471 467.8 376 343.4 343.4 332.4 291.6
Result No.	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

persephin p 4235 Seq ID e pre-pro pe mouse perse 1235 Seq ID 4235 Seq ID 4235 Seq ID persephin	4235 Seq Persephi e persephin ersephin 4235 Seq ersephin 4235 Seq	Sequence Seq	seq 1D Seq 1D Seq 1D Seq 1D Seq 1D Seq 1D Seq 1D Perseph
	AAX60471 AAX50344 AAX60487 AAX60495 AAX60495 AAX60472 AAX60472	AAX 60484 AAX 60493 AAX 60493 AAX 60486 AAX 60486 AAX 60460 AAX 60460 AAX 60460 AAX 60460	AXX60450 AXX60517 AXX60519 AXX60525 AAX60455 AXX60459 AXX60459 AXX60451 AXX60451 AXX60401 AXX60401
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10 112 13 14 16	232 232 233 244 253	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	. W W W W W W A A A A A A A A A A A A A

ALIGNMENTS

Human pre-pro persephin cDNA sequence. BP AAX60507 standard; cDNA; 471 (first entry) 17-AUG-1999 AAX60507; RESULT 1 AAX6050

Growth factor; GF; persephin; neuron growth; cellular degeneration; peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke; Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma; brain injury; spinal cord injury; nervous system tumour; infection; multiple sclerosis; cardiac muscle degeneration; injury;neurotoxin; metabolic disease; diabetes; renal dysfunction; neurturin; ss.

Homo sapiens

WO9914235-A1

25-MAR-1999.

98WO-US19163, 15-SEP-1998;

97US-0931858. 16-SEP-1997;

(UNIW) UNIV WASHINGTON.

Kotzbauer PT; Desauvage F, Johnson EM, Klein R, Lampe PA, Milbrandt JD;

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that comprises persephin or a fragment or a conservatively substituted contribution or a fragment or a conservatively substituted contributed to a growth of meurons and non-neuronal cells. The persephin of Polypeptides or proventing or treating cellular degeneration or insufficiency, e.g. neuronal degeneration resulting from peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's cute brain injury, acute spinal cord injury, nervous system tumours, multiple sclerosis, or infection, hematopoletic cell degeneration or insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or stem-cell insufficiences, cardiac muscle degeneration or insufficiency resulting from cardiomyopathy or congestive heart failure. They can also be used for treating e.g. peripheral nerve traum or injury, exposure to neurotoxins, metabolic diseases such as diabetes or renal dysfunctions and damage caused by infectious agents. The GF can also be used for peripheral nerve traum or call in a culture medium. The antisense polynucleotides can be used for treating a disease condition mediated by expression of persephin by a population of cells.
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                                                                                                                                          The invention relates to a novel isolated and purified growth
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                                                    New isolated persephin growth factor nucleic acids used to,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 471 BP; 55 A; 170 C; 164 G; 82 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match 100.0%; Score 471; DB 20; Best Local Similarity 100.0%; Pred. No. 2.4e-86; Matches 471; Conservative 0; Mismatches 0;
                                                                                                      Claim 19a; Page 199; 222pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAX60509 standard; cDNA; 471 BP
                                                                       promote neuronal growth
WPI; 1999-244023/20.
P-PSDB; AAY16727.
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AAX60509;

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The invention relates to a novel isolated and purified growth factor (GF)
that comprises persephin or a fragment or a conservatively substituted
variant. The persephin GF polypeptides can promote the survival and
correctly of neurons and non-neuronal cells. The persephin GF polypeptides
or polynuclectides can be used for preventing or treating cellular
degeneration or insufficiency, e.g. neuronal degeneration resulting from
ceptipheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's
disease, Parkinson's disease, Huntington's disease, ischemic stroke,
certipheral neuropathy, acute spinal cord injury, nervous system tumours,
multiple sclerosis, or infection, hematopoletic cell degeneration or
insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
stem-cell insufficiences, cardiac muscle degeneration or insufficiency
cesulting from cardianyopathy or congestive heart failure. They can also
be used for treating e.g. peripheral nerve trauma or injury, exposure to
neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
and damage caused by infectious agents. The GF can also be used for
medium. The antisense polynuclectides can be used for treating a disease
condition mediated by expression of persephin by a population of cells.
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                                                                                                                  peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke; Alzhelmer's disease; Parkinson's disease; Huntington's disease; trauma; brain injury; spinal cord injury; nervous system tumour; infection; multiple sclerosis; cardiac muscle degeneration; injury;neurotoxin; metabolic disease; diabetes; renal dysfunction; neurturin; ss.
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                                                                                                   neuron growth; cellular degeneration;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated persephin growth factor nucleic acids used to, e.g.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.3%; Score 467.8; DB 20; Lengum
99.6%; Pred. No. 1.1e-85;
v**matches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 471 BP; 55 A; 172 C; 164 G; 80 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kotzbauer PT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 19a; Page 200; 222pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Klein R,
                                                                                                   persephin;
                                                                                                                                                                                                                                                                                                                                                                                                           97US-0931858
                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Desauvage F, Johnson EM,
Lampe PA, Milbrandt JD;
                                                         WO9914235 Seq ID No: 205.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   promote neuronal growth
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                 17-AUG-1999
                                                                                                                                                                                                                                              Unidentified.
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Persephin-ARF; alternative reading frame; ARF; cell proliferation; antidatentiation; moctropic; neuroprotective; analgesic; haemostatic; antiparkinsonian; anticonvulsant; antianaemic; immune stimulating; immunosuppressive; antialiergic; activin; inhibin; antifertility; chemokinetic; anti-inflammatory; antibarcerial; oytostatic; antiartitic; thrombolytic; treatment; neuropathy; Huntington s; anniartritic; thrombolytic; treatment; neuropathy; Huntington s; shy-brager syndrome; stroke; tumour; multiple sclerosis; leucopaenia; diabetes; anaemia; thrombocytopaenia; immune deficiency; Crohn's disease; infection; autoimmune disorder; allergy; infectility; septic shock; arthritis; nephritis; inflammatory bowel disease; anaphylaxis; haemophilla; thrombosis; gene therapy; human; ds.
GCCCTGTCTGGTCCATGCCAGCTGTGGAGCCTGACCTGTCCGTGGCAGAGCTAGGCCTG 240
              GGGCCCTGCTGCCGGCCCACTCGCTACACCGACGTGGCCTTCCTCGATGACCGCCACCGC 420
                                                                                                                                                      GGCTACGCCTCAGAGGAGGAGGTCATCTTCCGCTACTGCGCCGGCAGCTGCCCCCGTGGT 300
                                                                                             GCCCGCACCCAGCATGGCCTGGCGCTGGCCGGCTGCAGGGCCAGGGCCGAGCCCACGGT 360
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/note= "This region is specifically claimed"
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/product- "Mature human Persephin-ARF"
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/product- "Human Persephin-ARF"
1.69
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1..495
                                                                                                                                                                                                                                                                                                                                            Human Persephin-ARF encoding gene.
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/note= "This
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/number= 2
70..556
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149..233
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The present sequence is a genomic DNA, which in its alternative reading frame (ARF) encodes human persephin-ARF. Persephin-ARF has cell proliferation, differentiation, nootropic, neuroprotective, analgesic, antiparkinsonian, anticonvulsant, antianaemic, haemostatic, antibarkinsonian, anticonvulsant, antianaemic, haemostatic, antibarfertility, chemotactic, chemokinetic, antiinflammatory, antibarderial, antiarthritic, chemokinetic, antiinflammatory, antibacterial, antiarthritic, thrombolytic and cytostatic activity. It can be used to treat conditions associated with altered expression of persephin-ARF like, neuropathy, amyotrophic lateral sclerosis, Shy-brager syndrome, stroke, brain injury, tumours, multiple sclerosis, diabetes, anaemia, thrombocytopaenia, leucopaenia, immune deficiencies, arthritis, nephritis, inflammatory bowel disease, crohn's disease, arthritis, nephritis, inflammatory bowel disease, crohn's disease, anaphylaxis, haemophilia and thrombosis. Persephin-ARF DNA can be used
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                                                                                                                     Klein R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79.8%; Score 376; DB 21; Length 556; llarity 84.7%; Pred. No. 3.5e-67; Conservative 0; Mismatches 0; Indels 85
                                                                                                                                                                                                                  Novel protein designated persephin-ARF, used for treating, amyotrophic lateral sclerosis and Alzheimer's disease -
                                                                                                                     Lampe PA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 556 BP; 69 A; 207 C; 179 G; 101 T; 0 other;
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                                                                                                                   Kotzbauer PT,
                                                                                                                                                                                                                                                                   Claim 7; Page 37; 45pp; English.
 99WO-US17277.
                               98US-0126799
                                                                                                                 Milbrandt JD,
                                                                (UNIW ) UNIV WASHINGTON,
                                                                                  (GETH ) GENENTECH INC
                                                                                                                                                                 2000-183126/16.
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30-JUL-1999;
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Matches 471;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present sequence is the human persephin-ARF complementary DNA. Persephin-ARF DNA in its alternative reading frame (ARF) encodes human persephin-ARF has cell proliferation, differentiation, nootropic, neuroprotective, analgesic, antiparkinsonian, anticonvulsant, antianaemic, haemostatic, immune stimulating, immunosuppressive, antiallergic, activin, inhibin, antibacterial, antiarthritic, thrombolytic and cytostatic activity antibacterial, antiarthritic, thrombolytic and cytostatic activity. It can be used to treat conditions associated with altered expression of persephin-ARF like, neuropathy, amyotrophic lateral sclerosis, Alzheimer's disease, Parkinson's disease, Huntington's disease, Shy-Drager syndrome, stroke, brain injury, tumours, multiple sclerosis, diabetes, anaemia, thrombocytopaenia, leucopaenia, immune deficiencies,
Persephin-ARF; alternative reading frame; ARF; cell proliferation;
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                                                                                                                                                                                                                      Human Persephin-ARF complementary DNA.
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                                                                                                                                            BP.
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                                                                                                                                         AAZ50337 standard; DNA; 556
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                                                                                                                                                                                           05-JUN-2000 (first entry)
                                                                541 CGCTGTGGTGCTGA 556
                                                   456 CGCCTGTGGTGGCTGA 471
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infections, autoimmune disorders, allergy, infertility, septic shock, arthritis, nephritis, inflammatory bowel disease, Crohn's disease, anaphylaxis, haemophilia and thrombosis. Persephin-ARF DNA can be used
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                                                                                                                                                                                                                                 85;
                                                                                                                                                                            Length 556;
                                                                                                                                                                                                                                 Indels
                                                                                                                                Sequence 556 BP; 101 A; 179 C; 207 G; 69 T; 0 other;
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                                                                                                                                                                          Score 376; DB 21;
Pred. No. 3.5e-67;
0; Mismatches 0;
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                                                                                                                                                                            Ouery Match 79.8%;
Best Local Similarity 84.7%;
Matches 471; Conservative
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                                                                              in gene therapy
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CTGCGCCGGCAGCTGCCCCCGTGGTGCCCGCACCCAGCATGGCCTGGCGCTGGCCCGGCT 335
                                                                                                                                                                                                                                                            GCAGGGCCAGGGCCGAGCCCACGGTGGGCCCTGCTGCCGGCCCACTCGCTACACCGACGT 395
                                                                                                                                                                                                                                                                                                                          GGCCTTCCTCGATGACCGCCACCGCTGGCAGCGCCTGCCCCAGCTCTCGGCGGCTGCCTG 455
                                                                                                                                                                                                                                                                                                                                          CCGCCCCCTTGCCCCGCCTGCCCGAGCCCTGTCTGGTCCATGCCAGCTGTGGAGCCTGAC
                                                                                                                                                                                                                                                                               Human; secreted protein; immunomodulatory; antisclerotic; dermatological; antiinflammatory; anti-HIV; cytostatic; cardiant; vascular; anti-anglogenic; ophthalmological; neuroprotectant; nootropic; anticonvulsant; antialzheimers; antiparkinsonian; antimicrobial; vulnerary; vaccine; gene therapy; cancer; protein coordinate data; infection; ss.
                                                                                                                                CCTGTCCGTGGCAGAGCTAGGCCTGGGCTACGCCTCAGAGGAGAAGGTCATCCTTCCGCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleic acids encoding 32 human secreted polypeptides, useful for preventing, diagnosing and/or treating e.g. cancers, Parkinson's disease and diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence encodes one of 32 novel human secreted The nucleic acid molecules and polypeptides they encode may the prevention, diagnosis and treatment of diseases such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Fiscella M,
en CA, Ruben
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R, Fiscell
Rosen CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human secreted protein cDNA, SEQ ID NO: 62.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 752-753; 890pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ni J, Baker KP, Birse CE, Ebner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Olsen HS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Moore PA, Olsen H:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAF97935 standard; cDNA; 974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HUMA-) HUMAN GENOME SCI INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                         CGGCTGTGGTGGCTGA 770
                                                                                                                                                                                                                                                                                                                                                                                        CGGCTGTGGTGCTGA 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-235311/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wei P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200121658-A1.
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                                                                                                                                                                                                                                                                                                                                                                           The invention relates to 2175 novel human ovarian antigens (ABP41054-ABP43228) and to cDNAs encoding them (AB054131-AB056305), and also encompasses polypeptides 90% identical and polynucleotides 95% identical to the sequences of the invention. The invention additionally relates to recombinant vectors and host cells comprising human ovarian antigen polynucleotides, antibodies against human ovarian antigen polynucleotides and polypeptides in diagnosing, treating, prognosing or preventing various ovary and/or breast related disorders. Such conditions include ovarian cancer and breast cancer, and metastalic tumnours of ovarian or breast origin, reproductive system of solvarian or breast origin, reproductive system of solvarian or breast origin, reproductive system disorders (e.g., chlamydia, HIV, toxoplasmosis, and toxic solvariants), infertility, disorders (e.g., mastitis, oophoritis and vaginitis), infertions (e.g., chlamydia, HIV, toxoplasmosis, and toxic shock syndrome), inflammatory conditions (e.g., mastitis, oophoritis and vaginitis), immune disorders (e.g., congenital and acquired immunodeficiencies, autoimmune oophoritis, systemic lupus erythematosus), blood-related disorders (e.g., anaemia), cardiovascular disorders, cespiratory disorders, neurological disorders, gastrointestinal disorders polynucleotides may also be used in screening for compounds which modulate ovarian antigen expression or activity. The polynucleotides may be used as food additives or to prepare antibodies useful in disease diagnosis, drug dargeting and phenotyping. The present sequence represents cDNA encoding a human ovarian antigen of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         277
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                                                                                                                                                                                                                                                                        Isolated nucleic acid molecules encoding novel ovarian polypeptides, useful in the prevention, treatment and diagnosis of cancer (e.g. ovarian cancer), immune disorders, cardiovascular disorders and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGCAAAGGCTGGAGGGACCTGGCTG-----------
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 974 BP; 179 A; 298 C; 329 G; 165 T; 3 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.3e-60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72.9%; Score 343.4;
83.1%; Pred. No. 1.3
                                                                                                                                                                                                                                                                                                                                                  Claim 1; SEQ ID No 406; 2922pp; English.
                                                                                                                                                                                                                                                                     Isolated nucleic acid molecules
                                                                                                                          07-JUN-2000; 2000US-209467P.
                                                                                            07-JUN-2001; 2001WO-US18569,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                           (HUMA-) HUMAN GENOME SCI
                                                                                                                                                                                                                                                                                                                      neurological diseases
                                                                                                                                                                                         Rosen CA;
                                                                                                                                                                                                                      2002-147878/19
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                             WO200200677-A1.
 Homo sapiens.
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Matches 462;
                                                             03-JAN-2002
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polypeptides. be used in

GA; DR;

Komatsoulis SA, Soppet

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immune disorders (e.g. multiple sclerosis, systemic lupus erythematosus and human immuno-deficiency virus (HIV) infections), hyperproliferative disorders (e.g. cancers and Gaucher's disease), cardiovascular diseases (e.g. cancers and Gaucher's disease), cardiovascular diseases arteriosclerosis), angiogenic disorders (e.g. corneal graft neovascularisation and dispetic retinopathy), neurological disorders (e.g. Huntington's chorea, Alzheimer's disease and Parkinson's disease), infectious diseases and/or for promoting wound healing, regeneration and/or chemotaxis. The nucleic acid molecules may be used to produce the secreted polypeptides. They may also be used as DNA probes in diagnostic assays to detect and quantitate the presence of similar nucleic acid sequences in samples. The polypeptides may be used as antigens in the production of antibodies and in assays to identify modulators of their expression and activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTGGGGCCCCCGATGCCCGTGGGGTTCCCGTGGCCGATGGAGAGTTCTCGTCTGAACAG 120
                                                                                                                                                                                                                                                                                                                                                                                                   147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCGCCGGCAGCTGCCCCGTGGTGCCCGCACCCAGCATGGCCTGGCCGTGGCCCGGCT 335
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          338 GTGGCAAAGGCTGGAGGACCTGGCTGGGTAAGGACTTCCAGGGACCCTCTGTGACTTCC 397
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                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                        88;
                                                                                                                                                                                                                                                             Length 974;
                                                                                                                                                                                                                                                                                           4; Indels
                                                                                                                                                                                                                                 Sequence 974 BP; 179 A; 297 C; 329 G; 165 T; 4 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGGCAAAGGCTGGAGGGACCTGGCTG-------
                                                                                                                                                                                                                                                             Score 343; DB 22;
Pred. No. 1.6e-60;
                                                                                                                                                                                                                                                                                          3; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF97903 standard; cDNA; 973
                                                                                                                                                                                                                                                             72.8%;
82.9%;
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                                                                                                                                                                                                                                                                                           Matches 461; Conservative
                                                                                                                                                                                                                                                                            Similarity
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The present sequence encodes one of 32 novel human secreted polypeptides.

The nucleic acid molecules and polypeptides they encode may be used in the prevention, diagnosis and treatment of diseases such as a manner disorders (e.g. multiple solerosis, systemic lupus erythematosus and human immuno-deficiency virus (HIV) infections), hyperproliferative disorders (e.g. cancers and Gaucher's disease), cardiovascular diseases of social solerosis), angiogenic disorders (e.g. corneal graft neovascularisation and diabetic retinopathy), neurological disorders (e.g. Huntington's chorea, Alzheimer's disease and Parkinson's disease), infectious diseases andor for promoting wound healing, regeneration and/or chemotaxis. The nucleic acid molecules may be used to produce the secreted polypeptides. They may also be used as DNA probes in diagnostic assays to detect and quantitate the presence of similar nucleic acid sequences in samples. The polypetides may be used as antigens in the production of antibodies and in assays to identify modulators of
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ed polypeptides, useful for e.g. cancers, Parkinson's
                                                                                                                                                                                                                                                                                                 Komatsoulis
SA, Soppet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89;
vascular; anti-anglogenic; ophthalmological; neuroprotectant; nootropic; anti-anglogenic; ophthalmological; neuroprotectant; nootropic; anticonvulsant; antialzheimers; antiparkinsonian; antimicrobial; vulnerary; vaccine; gene therapy; cancer; protein coordinate data; infection; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 973;
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                                                                                                                                                                                                                                                                                                 R, Fiscella M, Koma
Rosen CA, Ruben SA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 973 BP; 179 A; 298 C; 329 G; 165 T; 2 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 332.4; DB 2
Pred. No. 2.2e-58;
2; Mismatches 3
                                                                                                                                                                                                                                                                                                                                                                                             Nucleic acids encoding 32 human secreted preventing, diagnosing and/or treating e.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGCAAAGGCTGGAGGGACCTGGCTG-----
                                                                                                                                                                                                                                                                                                Ni J, Baker KP, Birse CE, Ebner
Lafleur DW, Moore PA, Olsen HS,
Young PE, Wel P, Florence KA;
                                                                                                                                                                                                                                                                                                     Ebner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 733; 890pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                preventing, diagnosing and/or tre
disease and diabetic retinopathy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              their expression and activity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            70.6%;
83.1%;
                                                                                                                                                                                                                                                                   (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                    22-SEP-2000; 2000WO-US26013.
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                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-235311/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                    WO200121658-A1
                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                  24-SEP-1999;
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Matches 462;
                                                                                                                                                                   29-MAR-2001
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protein; immunomodulatory; antisclerotic;

Human; secreted

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to isolated polynucleotide (I) and polypeptide (II) sequences. (I) is useful as hybridisation probes, polymerase chain reaction (PCR) primers, oligomers, and for chromosome and gene mapping, and in recombinant production of (II). The polynucleotides are also used in diagnostics as expressed sequence tags to identifying expressed genes. (I) is useful in gene therapy techniques to restore normal activity of (II) or to treat disease states involving quantitating a polypeptide in tissue, as molecular weight markers and as a food supplement. (II) and its binding partners are useful in medical afood supplement (II) and its binding partners are useful in medical disorders involving aberrant protein expression or biological activity. The polypeptide and polynucleotide sequences have applications in
             Human; chromosome mapping; gene mapping; gene therapy; forensic; food supplement; medical imaging; diagnostic; genetic disorder; ss.
                                                     CTGCGCCGGCAGCTGCCCCCGTGGTGCCCGCACCATGGCCTGGCGGCTGGCCCGGCT
                                                                               GCAGGGCCAGGGCCCACGGTGGGCCCTGCTGCCGGCCCACTCGCTACACCGACGT
                                                                                                                     GGCCTTCCTCGATGACCGCCACCGCTGCCGCTGCCCCAGCTCTCGGCGGCTGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits and to assess
                                                                                                                                                                                                                                                                                           DNA encoding novel human diagnostic protein #17112.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; SEQ ID No 17112; 103pp; English.
                                                                                                                                                                                                                                   BP.
                                                                                                                                                                                                                                AAS81308 standard; cDNA; 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tang YT;
                                                                                                                                                                                                                                                                                                                                                                                                                        31-MAR-2000; 2000US-0540217. 23-AUG-2000; 2000US-0649167.
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                                                                                                                                                                                                                                                                       13-FEB-2002 (first entry)
                                                                                                                                                                       CGGCTGTGGTGGCTGA 769
                                                                                                                                                             CGGCTGTGGTGGCTGA 471
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                                                                                                                                                                                                                                                                                                                                           Homo sapiens
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diagnostics, forensics, gene mapping, identification of mutations responsible for genetic disorders or other traits to assess biodiversity and to produce other types of data and products dependent on DNA and amino acid sequences. AAS64197-AAS94564 represent novel human diagnostic coding sequences of the invention.

Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Growth factor; GF: persephin; neuron growth; cellular degeneration; peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke; Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma; brain injury; spinal cord injury; nervous system tumour; infection; multiple sclerosis; cardiac muscle degeneration; injury; neurotoxin; metabolic disease; diabetes; renal dysfunction; neurturin; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1055 GTCCGTGGCAGAGCTAGGCCTGGGCTACGCCTCAGAGGAGAAGGTCATCTTCCGCTACTG 1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                219 GTCCGTGGCAGAGCCTAGGCTACGCCTCAGAGAAGAAGAGATCATCTCCGCTACTG 278
                                                                                                                                                                                                                                                                                                                                                                                                             CCCCCTTGCCCGCCTGCGCCGAGCCCTGTCTGGTCCATGCCAGCTGTGGAGCCTGACCCT 218
                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                    4; Indels
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                                                                                                                                                                                                                              Sequence 1173 BP; 191 A; 347 C; 344 G; 291 T; 0 other;
                                                                                                                                                                                                                                                                               DB 23;
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                                                                                                                                                                                                                                                                                                          Pred. No. 3.8e-50;
0; Mismatches 4
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                                                                                                                                                                                                                                                                             61.9%; Score 291.6;
ilarity 98.7%; Pred. No. 3.8
Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAX60503 standard; cDNA; 291
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Lampe PA, Milbrandt JD;
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                                                                                                                                                                                                                                                                                                       Similarity
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Matches 294;
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                                                                                                                                                                                                                                                                                  Query Match
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98WO-US19163
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15-SEP-1998;
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                             the invention relates to a novel isolated and purified growth factor (GF)
that comprises persephin or a fragment or a conservatively substituted
variant. The persephin GF polypeptides can promote the survival and
cyowth of neurons and non-neuronal cells. The persephin GF polypeptides
or polynucleotides can be used for preventing or treating cellular
degeneration or insufficiency, e.g. neuronal degeneration resulting from
peripheral neuropathy, amyotrophic lateral sciences, Alzheimer's
disease, Parkinson's disease, Huntington's disease, ischemic stroke,
acute brain injury, acute spinal cord injury, nervous system tumours,
multiple sciences, or infection, hematopoletic cell degeneration or
insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
stem-cell insufficiences, cardiac muscle degeneration or insufficiency
resulting from cardiomyopathy or congestive heart failure. They can also
be used for treating e.g. peripheral nerve traums or injury, exposure to
neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
and damage caused by infectious agents. The GF can also be used for
medium. The antisense polynucleotides can be used for treating a disease
condition mediated by expression of persephin by a population of cells.
The products can also be used for detection and diagnosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 GCCCTGTCTGGTCCATGCCAGCTGTGGAGCCTGACCCTGTCCGTGGCAGAGCTAGGCCTG 240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 61.8%; Score 291; DB 20; Length 291; Best Local Similarity 100.0%; Pred. No. 4.8e-50; Matches 291; Conservative 0; Mismatches 0; Indels (
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 291 BP; 33 A; 111 C; 99 G; 48 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human persephin protein encoding cDNA.
 Page 198; 222pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAX60505 standard; cDNA; 291 BP
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The invention relates to a novel isolated and purified growth factor (GF)
that comprises persephin or a fragment or a conservatively substituted
variant. The persephin GF polypeptides can promote the survival and
cyrowth of neurons and non-neuronal cells. The persephin GF polypeptides
or polynuclectides can be used for preventing or treating cellular
degeneration or insufficiency, e.g. neuronal degeneration resulting from
peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's
desease, Parkinson's disease, Huntington's disease, ischemic stroke,
acute brain injury, acute spinal cord injury, nervous system tumours,
multiple sclerosis, or infection, hematopotetic cell degeneration or
consulting from cardiomyopathy or congestive heart failure. They can also
resulting from cardiomyopathy or congestive heart failure. They can also
condition metabolic diseases such as diabetes or renal dysfunctions
and damage caused by infectious agents. The GF can also be used for
perconding the growth and/or differentiation of a cell in a culture
medium. The antisense polynuclectides can be used for treating a disease
condition mediated by expression of persephin by a population of cells.
The products can also be used for detection and diagnosis.
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                                                                                                                                                                                                                                                     New isolated persephin growth factor nucleic acids used to, e.g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421 TGGCAGCGGCTGCCCCAGCTCTCGGCGGCTGCCTGCGGCTGTGGTGGTGGCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 291 BP; 33 A; 112 C; 99 G; 47 T; 0 other;
                                                                   Kotzbauer PT;
                                                                   Klein R,
                                                                                                                                                                                                                                                                                                                                                          Claim 15; Page 199; 222pp; English
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                                                                   Desauvage F, Johnson EM,
Lampe PA, Milbrandt JD;
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Matches 290; Conservative
UNIW ) UNIV WASHINGTON
                                                                                                                                                                                                                                                                                              promote neuronal growth
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peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke; Alzhalmer's disease; Parkinson's disease; Huntington's disease; trauma; brain injury; spinal cord injury; nervous system tumour; infection; multiple sclerosis; cardiac muscle degeneration; injury;neurotoxin; metabolic disease; diabetes; renal dysfunction; neurturin; ss. cellular degeneration; persephin; neuron growth; factor; GF;

Unidentified

W09914235-A1

25-MAR-1999

98WO-US19163. 15-SEP-1998;

97US-0931858. 16-SEP-1997;

(UNIW) UNIV WASHINGTON.

ΡΤ; Kotzbauer Klein R, F, Johnson EM, Milbrandt JD; Desauvage F, Lampe PA,

WPI; 1999-244023/20.

isolated persephin growth factor nucleic acids used to, e.g. promote neuronal growth

Claim 19a; Page 194; 222pp; English.

The invention relates to a novel isolated and purified growth factor (GF)
that comprises persephin or a fragment or a conservatively substituted
variant. The persephin GF polypeptides can promote the survival and
variant. The persephin GF polypeptides can promote the survival and
corporation or insufficiency, e.g. neuronal degeneration resulting from
degeneration or insufficiency, e.g. neuronal degeneration resulting from
corporation or insufficiency, e.g. neuronal degeneration resulting from
degeneration or insufficiency and injury, nervous system tumours,
autitable sclerosis, or infection, hematopoletic cell degeneration or
insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
stem-cell insufficiences, cardiac muscle degeneration or insufficiency
stem-cell insufficiences, cardiac muscle degeneration or insufficiency
caulting from cardianyopathy or congestive heart failure. They can also
be used for treating e.g. peripheral nerve trauma or injury, exposure to
neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
and damage caused by infectious agents. The GF can also be used for
promoting the growth and/or differentiation of a cell in a culture
medium. The antisense polynucleacides can be used for treating a disease
condition mediated by expression of persephin by a population of cells.
The products can also be used for detection and diagnosis.

Sequence 471 BP; 85 A; 137 C; 138 G; 111 T; 0 other;

ä 61 GGCTGGGGCCCCGATGCCCGTGGGGTTCCCGTGGCCGATGGAGGTTCTCGTCTGAACAG 120 Gaps 1 ATGGCCGTAGGGAAGTTCCTGCTGGGCTCTCTGCTGCTCCTGCCCTGCAGCTGGGACAG 60 1 ATGGCTGCAGGAAGACTTCGGATCTTCTGCTGCTCCTGTCCTTGCACCTGGGCCTT 60 . 9 DB 20; Length 471; Pred. No. 9e-42; ; Mismatches 120; Indels Score 250; ö 53.1%; Ouery Match 53.1' Best Local Similarity 73.4' Matches 348; Conservative à 셤 ð

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121 GTGGCAAAGGCTGGAGGGACCTGGCTGGCACCCACCG---CCCCCCTTGCCCGCCTGCGC 177 à a

178 CGAGCCCTGTCTGGTCCATGCCAGCTGTGGAGCCTGACCCTGTCCGTGGCAGGTAGGC ö 셤

CTGGGCTATGCCTCAGAGGAGAAAATTATCTTCCGATACTGTGCTGGCAGCTGTCCCCAA 297 357 CTGGGCTACGCCTCAGAGGAGAAGGTCATCTTCCGCTACTGCGCCGGCAGCTGCCCCCGT 297 GGTGCCCGCACCCAGCATGGCCTGGCGCTGGCCGGCTGCAGGGCCAGGGCCGAGCCCAC 357 GGTGGGCCCTGCTGCCGGCCCACTCGCTACACCGACGTGGCCTTCCTCGATGACCGCCAC 417 198 GAGGTCCGTACCCAGCACAGTCTGGTGCTGGCCCGTCTTCGAGGGCCAGGGTCGAGGTTCAT CATTGGCAGCAGCTGCCTCAGCTCTCAGCCGCAGCTTGTGGCTGTGGTGGCTGTG 471 CGCTGGCAGCGCTGCCCCAGCTCTCGGCGGCTGCCTGCGGCTGTGGTGGTGGTGA 238 238 298 418 418 g ò ద ò 셤 ö 음

ВР AAX60489 standard; cDNA; 471

AAX60489;

(first entry) 17-AUG-1999 Murine pre-pro persephin sequence.

peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke; Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma; brain injury; spinal cord injury; nervous system tumour; infection; multiple sclerosis; cardiac muscle degeneration; injury;neurotoxin; metabolic disease; diabetes; renal dysfunction; neurturin; ss. Growth factor; GF; persephin; neuron growth; cellular degeneration;

Mus sp.

WO9914235-A1.

25-MAR-1999.

15-SEP-1998;

98WO-US19163. 97US-0931858 16-SEP-1997;

UNIW) UNIV WASHINGTON

Kotzbauer PT; Klein R, Johnson EM, Milbrandt JD; Desauvage F, Lampe PA,

WPI; 1999-244023/20.

P-PSDB; AAY16721

New isolated persephin growth factor nucleic acids used to, e.g. promote neuronal growth

Claim 19a; Page 190; 222pp; English.

that comprises persephin or a fragment or a conservatively substituted variant. The persephin of polypeptides can promote the survival and growth of neurons and non-neuronal cells. The persephin of polypeptides or polynucleotides can be used for preventing or treating cellular degeneration or insufficiency, e.g. neuronal degeneration resulting from peripheral neuropathy, amyotrophic lateral solerousis, Alzhamer's disease, Parkinson's disease, Houtington's disease, ischemic stroke, acute brain injury, acute spinal cord injury, nervous system tumours, nultiple sclerosis, or infection, hematopoletic cell degeneration or insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or stem-cell insufficiences, cardiac muscle degeneration or insufficiency resulting from eosinopenia, tramman or insufficiency cardiac muscle degeneration or insufficiency be used for treating e.g. peripheral neive tramma or injury, exposure to neurotoxins, metabolic diseases such as diabetes or renal dysfunctions and damage caused by infectious agents. The GF can also be used for The invention relates to a novel isolated and purified growth factor (GF)

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Johnson EM,
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           medium. The antisense polynucleotides can be used for treating a disease condition mediated by expression of persephin by a population of cells. The products can also be used for detection and diagnosis.
                                                                                                                                                                                                      61 GGCTGGGTCCTTGATCTTCAAGAGGCTTCTGTGGCAGATA---AGCTCTCATTTGGGAAG 117
                                                                                                                                                                                                                                             178 CGAGCCCTGTCTGGTCCATGCCAGCTGTGGAGCCTGACCCTGTCCGTGGCAGAGCTAGGC 237
                                                                                                                                                                                                                                                                                                                           CTGGGCTACGCCTCAGAGGAGAAGGTCATCTTCCGCTACTGCGCCGGCAGCTGCCCCGT 297
                                                                                                                                                                                                                                                                                                                                      358 GGTGGGCCCTGCTGCCGGCCCACTCGCTACACCGACGTGGCCTTCCTCGATGACCGCCAC 417
                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTGGGGCCCCGATGCCCGTGGGGTTCCCGTGGCCGATGGAGAGTTCTCGTCTGAACAG 120
                                                                                                                                                                                                                              121 GIGGCAAAGGCIGGAGGGACCIGGCIGGGCACCCACCG---CCCCCTIGCCCGCCTGCGC 177
                                                                                                                                                                                                                                                                                                  178 AGAGCCTTGGCTGGTTCATGCCGACTGTGGAGCCTGACCCTACCAGTGGCTGAGCTGGGC 237
                                                                                                                                                                                                                                                                                                                                                                         298 GGTGCCCGCACCCAGCATGGCCTGGCCCTGGCCCGGCTGCAGGGCCAGGGCCGAGCCCAC 357
                                                                                                           Gaps
                                                                                                                                   1 ATGGCCGTAGGGAAGTTCCTGCTGGGCTCTCTGCTGCTCCTGTCCCTGCAGCTGGGACAG 60
                                                                                                                                                        1 ATGGCTGCAGGAAGACTTCGGATCCTGTGTCTGCTGCTGTCCTTGCACCCGAGCCTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Persephin; neurturin; gilal-derived neurotrophic factor; GDNF; neuronal degeneration; haematopoietic call degeneration; cardiac muscle degeneration; amyotrophic lateral selerosis; neuropathy; Alzheimer's disease; Parkinson's disease; stroke; Huntington's disease; nervous system tumour; multiple sclerosis; ecosinopenia; basopenia; lymphopenia; monocytopenia; eutropenia; anaemia; thrombocytopenia; stem cell insufficiency; cardiomyopathy;
growth and/or differentiation of a cell in a culture
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       418 CGCTGCCAGCGCCTGCCCCCAGCTCTCGGCGCTGCCTGCGGCTGTGGTGGTGGCTGA 471
                                                                                                                                              DB 20; Length 471;
                                                                                  Score 250; DB 20; Length 4
Pred. No. 9e-42;
0; Mismatches 120; Indels
                                                          Sequence 471 BP; 82 A; 140 C; 143 G; 106 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     congestive heart failure; therapy; mouse; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mature mouse persephin genomic DNA.
                                                                                  Query Match 53.1%;
Best Local Similarity 73.4%;
Matches 348; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus
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This DNA sequence codes for mature mouse persephin (see AAW30067),
a novel growth factor and member of the glial-derived neurotrophic
factor-neutrurin family. Recombinant persephin can be expressed
in host cells utilising the isolated nucleic acid sequence.
In host cells utilising the isolated nucleic acid sequence.
Cused in claimed methods to prevent or treat cellular degeneration
or insufficiency, such as neuronal degeneration resulting from
peripheral neuropathy amyotrophic lateral sclerosis, Alzheimer's
disease, Parkinson's disease, Huntington's disease, ischaemic
cused in spinal cord injury, nervous system tumours,
multiple sclerosis and infection. The cellular degeneration or
insufficiency resulting from eosinopenia, hymphopenia,
insufficiency resulting from eosinopenia, hymphopenia,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       96 CCATGTCCGTCTTCCAAGAGCCTTGGCTGGTTCATGCCGACTGTGGAGCCTGACCCTACC 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222 CGTGGCAGAGCTAGGCCTGGGCTACGCCTCAGAGGAGAAGGTCATCTTCCGCTACTGCGC 281
                                                                                                                                                                                                             GDNF-neurturin family related growth factor, Persephin - used to prevent or treat cellular, neuronal or non-neuronal, degeneration or insufficiency
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               monocytopenia, neutropenia, anaemia, thrombocytopenia or stem-cell
insufficiencies. Also included is cardiac muscle degeneration or
insufficiency arising from cardiomyopathy or congestive heart
failure. Antisense persephin nucleotide sequences can be used to
treat conditions mediated by expression of persephin (all claimed).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             216 TGGCAGCTGTCCCCAAGAGGCCCGTACCCAGCACAGTCTGGTACTGGCCCGGCTTCGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          282 CGGCAGCTGCCCCCGTGGTGCCCGCACCCAGCATGGCCTGGCGCTGGCCCGGCCTGGCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156 AGTGGCTGAGCTGGGCCTGGGCTATGCCTCGGAGGAGAAGGTCATCTTCCGATACTGTGC
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                                                                   Milbrandt JD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 405 BP; 71 A; 132 C; 108 G; 94 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 207.6; DB 1
Pred. No. 3.2e-33;
0; Mismatches 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lampe PA,
                                                                                                                                                                                                                                                                                                                                                                         Claim 17; Page 189; 228pp; English.
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Best Local Similarity 79.4%;
Matches 246; Conservative
                                                                   PT,
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(UNIW ) UNIV WASHINGTON
                                                                   Kotzbauer
                                                                                                                                   WPI; 1997-470818/43
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       462 TGGTGGCTGA 471
                                                                                                                                                                      P-PSDB; AAW30067
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The invention relates to a novel isolated and purified growth factor (GF) that comprises persephin or a fragment or a conservatively substituted variant. The persephin GF polypeptides can promote the survival and growth of neurons and non-neuronal cells. The persephin GF polypeptides or polynucleotides can be used for preventing or treating cellular degeneration or insufficiency, e.g. neuronal degeneration resulting from peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's classes. Parkinson's disease, Huntington's disease, ischemic stroke, acute spinal cord injury, nervous system tumours, multiple sclerosis, or infection, hematopoietic cell degeneration or insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or stem-cell insufficiences, cardiac muscle degeneration or insufficiency resulting from cardiomyopathy or congestive heart failure. They can also be used for treating e.g. peripheral nerve trauma or injury, exposure to neurobatins, metabolic diseases such as diabetes or renal dysfunctions and damana canner of the treating e.g. peripheral nerve trauma or injury, exposure to and damana canner of the treating e.g. peripheral nerve trauma or injury, exposure to and damana canner of the treating e.g. peripheral merve trauma or injury, exposure to and damana canner of the treating e.g. peripheral merve trauma or injury, exposure to and damana canner of the treating e.g. peripheral merve trauma or injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and damage caused by infectious agents. The GF can also be used for promoting the growth and/or differentiation of a cell in a culture medium. The antisense polynucleotides can be used for treating a disease condition mediated by expression of perseptin by a population of cells. The products can also be used for detection and diagnosis.
Growth factor; GF; persephin; neuron growth; cellular degeneration; peripheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke; Alzheimer's disease; Parkinson's disease; trauma; brain injury; spinal cord injury; nervous system tumour; infection; multiple sclerosis; cardiac muscle degeneration; injury; neurotoxin; metabolic disease; diabetes; renal dysfunction; neurturin; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated persephin growth factor nucleic acids used to, e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kotzbauer PT;
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                                                                                                                                                                                                                                                                                                                                      98WO-US19163.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Milbrandt JD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  promote neuronal growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-244023/20.
                                                                                                                                                                             Unidentified
                                                                                                                                                                                                                                W09914235-A1
                                                                                                                                                                                                                                                                                                                                      15-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                   16-SEP-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Desauvage F,
                                                                                                                                                                                                                                                                                   25-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PA,
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ö 162 CCTTGCCCGCCTGCCGAGCCCTGTCTGGTCCAGCTGTGGAGCCTGACCCTGTC 221 222 CGTGGCAGAGCTAGGCCTGGGCTACGCCTCAGAGGAAGGTCATCTTCCGCTACTGCGC 281 341 401 282 CGGCAGCTGCCCCCGTGGTGCCCGCACCCAGCATGGCCTGGCGCTGGCCCGGCTGCAGGG CCAGGGCCGAGCCCACGGTGGGCCCTGCTGCCGACCTCGCTACACCGACGTGGCCTT ö DB 20; Length 405; 64; Indels Sequence 405 BP; 71 A; 132 C; 108 G; 94 T; 0 other; Score 207.6; DB 2 Pred. No. 3.2e-33; 0; Mismatches 64 Query Match
Best Local Similarity 79.4%;
Matches 246; Conservative 342 ò

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Gaps

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DB 20; Length 544; 64; Indels

Score 207.6; DB 2 Pred. No. 3.2e-33; 0; Mismatches

44.1%;

Best Local Similarity 79.4 Matches 246; Conservative

Query Match

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The invention relates to a novel isolated and purified growth factor (GF)
that comprises persephin or a fragment or a conservatively substituted
variant. The persephin GF polypeptides can promote the survival and
conservation or insufficiency, e.g. neuronal degeneration resulting from
degeneration or insufficiency, e.g. neuronal degeneration resulting from
peripheral neuropathy, amyotrophic lateral scalerosis. Altheimer's
desencation or insufficiency, e.g. neuronal degeneration resulting from
peripheral neuropathy, amyotrophic lateral scalerosis, Altheimer's
desease, Parkinson's disease, Huntington's disease, ischemic stroke,
acute brain injury, acute spinal cord injury, nervous system tumours,
multiple sclerosis, or infection, hematopoietic cell degeneration or
insufficiency resulting from eosinopenia, anemias, thrombocytopenia, or
stem-cell insufficiences, cardiac muscle degeneration or insufficiency
cell from cardiomyopathy or congestive heart failure. They can also
be used for treating e.g. peripheral nerve trauma or injury, exposure to
neurotoxins, metabolic diseases such as diabetes or renal dysfunctions
and damage caused by infectious agents. The GF can also be used for
conding the growth and/or differentiation of a cell in a culture
conditing the growth and/or differentiation of a cell in a culture
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   perlpheral neuropathy; amyotrophic lateral sclerosis; ischemic stroke; Alzheimer's disease; Parkinson's disease; Huntington's disease; trauma; brain injury; spinal cord injury; nervous system tumour; infection; multiple sclerosis; cardiac muscle degeneration; injury;neurotoxin; metabolic disease; diabetes; renal dysfunction; neururin; ss.
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Growth factor; GF; persephin; neuron growth; cellular degeneration;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New isolated persephin growth factor nucleic acids used to, e.g.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Klein R,
                                                                                                                                                                                                                                                                                                                                                                                   BP.
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Lampe PA, Milbrandt JD;
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AL065742 Drosophil
AL066742 Drosophil
AL066742 Drosophil
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BM726983 UT E-EJO-
BM726983 UT E-EJO-
BM726983 UT R-CAO-
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BG376439 UT R-CAO-
BG376439 UT R-CAO-
BK999804 UT R-DJI-
AL053013 Drosophil
BM547879 BB547879
BM702521 UT R-CLI-
AL16053013 Drosophil
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AL16054 Drosophil
AL1998581 EST250270
AL198694 UT R-CAI-
AL160505 Drosophil
AL199358 Pan trog1
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AL06883 Drosophil
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Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Dr. Jose Mercuende
CDNA Library preparation: Dr. M. Bento Soares, University of Iowa
CDNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa
Clone Distribution: Clone distribution information can be found
Seq primer: M13 FORWARD
Seq primer: M13 FORWARD
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 510)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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CNS0072Q
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CNS04PM4
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BM665236 UI-E-CLI-
BM677930 UI-E-EJI-
BQ189286 UI-E-EJI-
AL168931 Tetraodon
                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                               1 ATGGCCGTAGGGAAGTTCCT............CCTGCGGCTGTGGTGGTGA 471
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    GenCore version 5.1.3
Copyright (c) 1993 - 2003 Compugen Ltd.
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Listing first 45 summaries
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BM665236/c
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                                                                                                    /ue__stage_mixed
/lab_host="wetcor: pr773-pac (Pharmacia) with a modified
/note="wector: pr773-pac (Pharmacia) with a modified
polylinker; Site_1: Econ I; Site_2: Not I; tissues:
Cholonic mucosa with Crohns disease, Cholonic mucosa with
ulcerative colitis, Fetal thymus, Cervix, Cervical
adenosquamous carcinoma, Ligament cells, Prostate
carcinoma, Bladder carcinoma, Brain oligodenroga;
NCI_CGAP_Sub9 is a subtracted cDNA library constructed
according to Bonaldo, Lennon and Soares, Genome Research,
6:791-806, 1996. First strand cDNA synthesis was primed
with an oligo-dT primer containing a Not I site. Double
stranded cDNA was ligated to an EcoR I adaptor, digested
with Not I, and cloned directionally into P773-pac
wector. The oligonucleotide used to prime the synthesis of
                                                                                                                                                                                                                                                                                                                                                      first-strand cDNA contains a library tag sequence that is located between the Not I site and the (dT)18 tail. The sequence tags for this library are CGTC, AACG, GGGCC, GGAAG, TAGC, TAGC, AGG, AGACA, ATCAC. For additional information, contact: Bento Soares, bento-soares@ulowa.edu TAG_TISSUE-colonic mucosa with Crohns disease
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Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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Pred. No. 2.3e-55;
0; Mismatches 1; Indels 0:
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/tissue_type="mixed"
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                    _xref-"taxon:9606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  178 g
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illarity 99.7%;
Conservative
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BM665236 643 bp mRNA linear EST 27-FEB-2002 UI-E-CLI-afg-1-03-0-UI.sl UI-E-CLI Homo saplens cDNA clone UI-E-CLI-afg-1-03-0-UI 3', mRNA sequence.
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                                                                                                                                                                                                                                                                                                                                                                        /clone="IMAGE:2558497"
/clone_11b="Soares_Dieckgraefe_colon_NHCD"
/tissue_type="colonic mucosa from 3 patients with Crohn's disease"
                                                                                                         Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
This clone is available royally-free through LLNL; contact the
This clone is available royally-free through LLNL; contact the
THAGE Consortium (infoelmage.llnl.gov) for further information.
INAGE Consortium (infoelmage.llnl.gov) for further information.
Insert Length: 1016 Std Error: 0.00
Seq primer: -40Up from Gibco
High quality sequence stop: 376.
Location/Qualiflers
1. 518
/organism="Homo sapiens"
//db_rref="taxon:9606"
//db_rref="taxon:9606"
1 (bases 1 to 518)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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17.7%; Score 83.2; DB 10; Length 518;
Best Local Similarity 58.2%; Pred. No. 3.2e-07;
Matches 189; Conservative 0; Mismatches 121; Indels 15;
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us-09-220-617b-203.rge

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GenCore version 5.1.3 Copyright (c) 1993 - 2003 Compugen Ltd.
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OM nucleic - nu	OM nucleic - nucleic search, using sw model
Run on:	March 7, 2003, 11:33:49; Search time 2567 Seconds (Without alignments) 5339.860 Million cell updates/sec
Title: Perfect score: Sequence:	US-09-220-617B-203 471 1 ATGGCGTAGGGAAGTTCCTCCTGCGGCTGTGGTGGCTGA 471
Scoring table:	IDENTITY_NUC Gapop 10.0 , Gapext 1.0
Searched:	2054640 segs, 14551402878 residues
Total number of	Total number of hits satisfying chosen parameters: 4109280
Minimum DB seq Maximum DB seq	Minimum DB seq length: 0 Maximum DB seq length: 2000000000
Post-processing	Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries
Database :	GenEmbl: *

| GenEmbl:*
| 9b.ba:*
| 2: 9b.btg:*
| 3: 9b_ln:*
| 4: 9b_on:*
| 5: 9b_on:*
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| 6: 9b_pat:*
| 7: 9b_ph:*
| 8: 9b_pl:*
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| 11: 9b_sts:*
| 11: 9b_on:*
| 12: 9b_on:*
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| 15: em_ba:*
| 16: em_ln:*
| 17: em_ln:*
| 18: em_ln:*
| 18: em_ln:*
| 19: em_nn:*
| 19: em_nn:*
| 19: em_nn:*
| 19: em_nn:*
| 19: em_ln:*

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Score Match Length DB ID 471 100.0 471 9 AF0 372.8 79.2 18819 9 AK0 250 53.1 471 10 AFF 207.6 44.1 544 6 AR1 207.6 44.1 559 6 AR1 203 43.1 142758 2 AR1 199.8 43.1 142758 2 AR1 199.8 16.9 306 6 AR1 199.8 16.9 306 6 AR1 79.8 16.0 306 6 AR1 79.8 16.0 306 6 AR1 79.8 16.0 306 6 AR1 79.8 1	SUMMARIES Description		AR152108 Seq AR001492 Seq AR001492 Seq AR04780 Seq AR062986 Seq AR001505 Seq AR001505 Seq AR01506 Seq AR062999 Seq AR05206 Seq AR062999 Seq AR05208 Seq AR06298 Seq AR05298 Seq AR05298 Seq AR05298 Seq AR05298 Seq AR05298 Seq AR05298 Seq AR05298 Seq AR05295 Seq AR152052 Seq AR152052 Seq AR152052 Seq AR152052 Seq	AC010454 AC021165 AC021165 AC03186 AC103402 AC011952 AC01382 AC01382	71 bp mRNA linear PRI 06-MAR-1998 A, complete cds. ta; Craniata; Vertebrata; Euteleostomi; ta; Craniata; Vertebrata; HomoJ., Fahrner, T.J., Baloh, R.H., Lampe, P.A., Heuckeroch, R.O., K.S., Golden, J.P., Davies, J.A.,
Score Match Length DB 471 100.0 471 100.0 471 100.0 471 100.0 471 100.0 225.8 226.7 227.8 79.2 1880 9 226.7 237.8 79.2 1880 9 203.4 4.1 559 6 203.4 43.1 42758 2 203.4 43.1 142758 2 199.8 16.9 306 6 79.8 16.9 306 6 79.8 16.9 306 6 79.8 16.9 306 6 79.8 16.9 306 6 79.8 16.9 306 6 79.8 16.9 591 6 79.8 16.9 70 70 70 70 70 70 70 70 70 70 70 70 70		AF04096 AK055499 AC01149 AF04099 AF04099 AF15213 AR152120 AR152120 AR15213 AR15213 AR15213 AR15213 AR15213 AR15213 AR15213 AR15213	ARVIJOZOU AROO5226 AROO5226 AROO5296 ARIC52056 AROO1505 AROO1505 AROO5241 AROO5230 AROO5230 AROO5230 AROO5230 AROO5230 AROO5230 AROO5230	AC010454 AX4702165 AX4703188 AX4703188 AX103402 AX11952 AX611952 AX055740 AX201382 AX1382	471 n mRNA, 9 hordata; rimates; age, F.J. M.G., La
Score Match Length 471 100.0 477 372.8 79.2 118118 250 53.1 477 207.6 44.1 554 207.6 44.1 553 208 43.1 4275 208 43.1 4275 199.8 42.4 293 199.8 16.9 306 79.8 16.9 306 79.8 16.9 306 79.8 16.9 80893 79.8 16.9 80893 79.8 16.9 80893 79.8 16.9 591 79.8 16.9 80893 79.8 16.9 591 79.8 16.9 591 79.8 16.9 60893 79.8 16.9 60893 79.8 16.9 60893 79.8 16.9 1160 79.8 16.9 80893 79.8 16.9 306 79.8 16.9 306 79.8 16.9 306 79.8 16.9 306 79.8 16.9 306 79.8 16.9 306 79.8 16.9 306 79.8 16.9 1100 79.8 16.9 1100 79.8 16.9 1100 79.8 16.9 1100 79.8 16.9 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 79.8 16.0 306 70.8 16.0 306 70.			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	66222	ephi 3570 3570 a; Ca (Ca) Sauvi Sey,i
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                                                                                                                                                                                                                                                                  /product-"persephin"
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TQHGLALARLQGGGRAHGGPCCRPTRYIDVAFLDDRHRWQRLPQLSAAACGCGG"
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               Gray, C.,
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de Sauvage.F.J., Klein,R.D., Fahrner,T.J. and Milbrandt,J.
de Sauvage.F.J., Klein,R.D., Fahrner,T.J. and Milbrandt,J.
Direct Submission
Submitted (05-JAN-1998) Pathology, Washington University Medical
School, 660 S. Euclid Ave., St. Louis, MO 63110, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GGCTGGGGCCCCGATGCCCGTGGGGTTCCCGTGGCCGATGGAGGGTTCTCGTCTGAACAG 120
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Mang,L.-C., Vandlen,R., Mcffat,B., Klein,R.D., Poulsen,K.,
Garces,A., Henderson,C.E., Phillips,H.S. and Johnson,E.M.
Persephin, a novel neurotrophic factor related to GDNF and
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100.0%; Score 471; DB 9;
Best Local Similarity 100.0%; Pred. No. 3e-71;
Matches 471; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                           /note="neurotrophic factor; PSP"
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/db_xref="taxon:9606"
1. 471
                                                             Neuron 20 (2), 245-253 (1998)
98150950
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AK055490.1 GI:16550224
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Submitted (24-007-2001) Takao Isogai, Helix Research Institute, Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan (E-mall:genomics@hri.co.jp, Tel:81-438-52-3955, Fax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Blotechnology (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan Rey Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB, HRI, and Blotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: RAB and
                                                                                                                                                                                  Nishi,T., Nakagawa,S., Senoh,A., Mizuguchi,H., Inagaki,H.,
Sugiyama,T., Irie,R., Otsuki,T., Sato,H., Wakamatsu,A., Ishli,S.,
Yamannco,J., Isono,Y., Kawal-Hio,Y., Saito,K., Nishikawa,T.,
Kimura,K., Yamashita,H., Matsuo,K., Nakamura,Y., Sekine,M.,
Kikuchi,H., Kanda,K., Wagatsuma,M., Murakawa,K., Kanehori,K.,
Takahashi-Fulii,A., Oshima,A., Sugiyama,A., Kawakami,B., Suzuki,Y.,
Sugano,S., Nagahari,K., Masuho,Y., Nagai,K. and Isogai,T.
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                                                                                                         Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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oligo capping; fis (full insert sequence).
Homo sapiens fetus brain cDNA to mRNA, clone_lib:FEBRA2
clone:FEBRA2006793.
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Pred. No. 1.4e-54;
0; Mismatches 2;
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2 (bases I to 2180)
Isogai, T., Ortsuki, T. and Sugiyama, T. Direct Submission
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1. 2180
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a 680 c 648 g 448
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illarity 84.4%;
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Pred. No.

Similarity

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (07-OCT-1999) Production Sequencing Facility, DOE Joint Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA 3 (bases 1 to 118819)

DOE Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SHGC-31644 G28545
SHGC-35441 G29816
Note: at basepair 20107
there is a discrepancy between the plasmid library and the original
M13 shotgun lib. The following sequence is the consensus according
                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 118819)
DOE Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (23-OCT-2000) DOE Joint Genome Institute, 2800 Mitchell
Drive, Walnut Greek, CA 94598, USA
4 (bases 1 to 118819)
DOE Joint Genome Institute and Stanford Human Genome Center.
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Submitted (23-AUG-2001) DOE Joint Genome Institute, 2800 Mitchell
Drive, Walnut Creek, CA 94598, USA
On Aug 23, 2001 this sequence version replaced gi:10947022.
Draft Sequence Produced by DOE Joint Genome Institute
                      AC011491 118819 bp DNA linear PRI 23-AUG
Homo sapiens chromosome 19 clone CTB-180A7, complete sequence.
AC011491
     GCAGGGCCAGGGCCCACGGTGGCCCTGCTGCCGGCCCACTCGCTACACCGACGT
                                                             GGCCTTCCTCGATGACCGCCACCGCTGGCAGCGCTGCCCCAGCTCTCGGCGGCTGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     www.jgi.doe.gov
Finishing Completed at Stanford Human Genome Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             www.shgc.stanford.edu
Quality: Phrap Quality >-40 99.9% of Sequence;
Estimated Total Number of Errors is 0.
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/organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="19"
/clone="CTB-180A7"
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DOE Joint Genome Institute.
Direct Submission
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Homo sapiens
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Length 118819;

DB 9;

79.2%; Score 372.8;

Query Match

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Mus musculus

Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

[ (bases 1 to 471)

Milbrandt, J., de Sauvaqe, F.J., Fahrner, T.J., Baloh, R.H.,

Leitner, M.L., Tansey, M.G., Lampe, P.A., Heuckeroth, R.O.,

Kotzbauer, P.T., Simburger, K.S., Golden, J.P., Davies, J.A.,

Vejsada, R., Kato, A.C., Hynes, M., Sherman, D., Nishimura, M.,

Wang, L.-C., Vandlen, R., Moffat, B., Klein, R.D., Poulsen, K., Gray, C.,

Garces, A., Henderson, C.B., Phillips, H.S. and Johnson, E.M.

Persephin, a novel neurotrophic factor related to GDNF and
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Fahrner, T.J., Heuckeroth, R.O., Simburger, K.S., Kotzbauer, P.T. and
                                                      76887
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    d. No. 5.5e-55;
Mismatches 2;
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Mus musculus persephin mRNA, complete cds.
AF040960
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ilarity 84.4%;
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Direct Submission
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a novel neurotrophic factor related
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73.4%;
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                                                                                                             /codon_start---
/product---persephin"
/protein_id="Ac40057.1"
/db_xref="G1:2935706"
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TQHSLVLARLRGRGRAHGRPCCQFTSSADVTFLDDQHHWQQLPQLSAAACGCGG"
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Milbrandt,J., de Sauvage,F.J., Fahrner,T.J., Baloh,R.H.,
Leitner,M.L., Tange,P.A., Huckeroth,R.O.,
Kotzbauer,P.T., Simburger,K.S., Golden,J.P., Davies,J.A.,
Vejsada,R., Kato,A.C., Hynes,M., Sherman,D., Nishimura,M.,
Wang,L.-C., Vandlen,R., Moffat,B., Klein,R.D., Poulsen,K., Gray,C.,
Garces,A., Henderson,C.E., Phillips,H.S. and Johnson,E.M.
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Rattus norvegicus.
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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                                                                                                                                                                                                                                                                    Score 250; DB 10; 1 Pred. No. 2e-33; 0; Mismatches 120;
                                                                                              PSP"
                                                                                              /note="neurotrophic factor;
                             /organism="Mus musculus"
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Location/Qualiflers
                                                                                                           /codon_start=1
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Best Local Similarity 73.4%;
Matches 348; Conservative
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/product="persephin"
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/translation="MAAGRIFELD"
/translation
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                                                                                                                                                                                                                               To (bases 1 to 471)
Fahrner, T.J., Heuckeroth, R.O., Simburger, K.S., Kotzbauer, P.T., Milbrandt, J.
Direct Submission
Submitted (05-JAN-1998) Pathology, Washington University Medic School, 660 S. Euclid Ave., St. Louis, MO 63110, USA
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and
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Pred. No. 2e-33;
0; Mismatches 120;
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/organism="Rattus norvegicus"
/db_xref="taxon:10116"
| 1. .471
/note="neurotrophic factor; P
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Sequence 175 from patent US 6232449.
AR152134 G1:15118184
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250 CCATGICCGICIICCAAGAGCCIIGGCIGGIICAIGCCGACIGIGGAGCCIGACCCIACC 309
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MUS musculus chromosome 17 clone RP23-124G7, complete sequence.
AC073683
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Pred. No. 3.5e-26;
0; Mismatches 64; Indels
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173 c 155 g
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Sequence 131 from patent
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Best Local Similarity 79.4'
Matches 246; Conservative
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          1 (bases 1 to 405)
Johnson, E.M. Dr., Milbrandt, J.D., Kotzbauer, P.T. and Lampe, P.A.
Persephin and related growth factors
Patent: US 6232449-A 175 15-MAY-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 544)
Johnson, E.M. Jr., Milbrandt, J.D., Kotzbauer, P.T. and Lampe, P.A. Persephin and related growth factors
Patent: US 6232449-A 105 15-MAY-2001;
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Pred. No. 3.8e-26;
0; Mismatches 64
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44.1%; Score 207.6; DB 6
Best Local Similarity 79.4%; Pred. No. 3.5e-26;
Matches 246; Conservative 0; Mismatches 64
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/organism="unknown"
132 c 108 q
                                                            Location/Qualifiers
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158 c 153 q
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AR152107
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Best Local Similarity 79.48;
Matches 246; Conservative 0
Unclassified.
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                                                                                                                                                                       Submitted (29-70N-2000) Production Sequencing Facility, DOE Joint Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA 3 (bases 1 to 213137)

DOE Joint Genome Institute and Stanford Human Genome Center.
                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I (bases 1 to 213137)
DOE Joint Genome Institute and Stanford Human Genome Center. Direct Submission
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Submitted (05-APR-2002) DOE Joint Genome Institute, 2800 Mitchell
Submitted (05-APR-2002) DOE Joint Genome Institute, 2800 Mitchell
6 (bases 1 to 213137)
Doe Joint Genome Institute and Stanford Human Genome Center.
Direct Submission
Submitted (16-APR-2002) DOE Joint Genome Institute, 2800 Mitchell
Drive, Walnut Creek, CA 94598, USA
On Apr 5, 2002 this sequence version replaced 91:18767417.
Draft Sequence Produced by DOE Joint Genome Institute
                                                                                                                                                                                                                                             Direct Submission
Submitted (20-FEB-2002) DOE Joint Genome Institute, 2800 Mitchell
Drive, Walnut Creek, CA 94598, USA
4 (bases 1 to 213137)
DOE Joint Genome Institute and Stanford Human Genome Center,
Direct Submission
                                                                                                                                                                                                                                                                                                                                                   Submitted (26-FEB-2002) DOE Joint Genome Institute, 2800 Mitchell birto, Mahlut Creek, CA 94598, USA 5 (bases 1 to 21313) DOE Joint Genome Institute and Stanford Human Genome Center.
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Finishing Completed at Stanford Human Genome Center
www.shgc.stanford.edu
woulity: Phrap Quality >=40 99.5% of Sequence;
Estimated Total Number of Errors is 1.2.
Location/Qualiflers
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/db_xref="taxon:10090"
/chromosome="17"
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                                                                                                                      2 (bases 1 to 213137)
DOE Joint Genome Institute.
Direct Submission
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Best Local Similarity 79.0'
Matches 245; Conservative
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142758 bp DNA linear HTG 24-AUG-2002
Rattus norvegicus clone CH230-117315, *** SEQUENCING IN PROGRESS
***, 74 unordered pleces.
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        PAT 08-AUG-2001
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Marayo, Martie, Matrier, Abramzon, S., Adams, C., Alder, J., Allen, C., Allen, H., Alsbrooks, S., Amin, A., Anguiano, D., Angalebechi, V., Aoyagi, A., Ayodeji, M., Baca, E., Baden, H., Angalebechi, V., Barnsteade, M., Benahmed, F., Baldvin, D., Banddaranaike, D., Barber, M., Barnstead, M., Benahmed, F., Biswalo, K., Blair, J., Blankenburg, K., Blyth, P., Brown, M., Bryant, N., Buhay, C., Burch, P., Burrell, K., Calderon, E.,
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Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                 1 (bases 1 to 559)
Johnson, E. M. Jr., Milbrandt, J.D., Kotzbauer, P.T. and Lampe, P.A.
Persephin and related growth factors
Patent: US 6232499-A 134 15-MAY-2001;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              253 TGTCCGCCTTCCAAGAGCCTTACCTGGTTTGTGCCGGCTGTGGGGGCCTGACCAGT 312
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             linear
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Pred. No. 2.1e-25;
Sequence 134 from patent US 6232449.
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166 c 150 g
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AC129629.1 GI:22024375
                                                                                       AR152121.1 GI:15118171
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Best Local Similarity 78.8%;
Matches 242; Conservative
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Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A., Charter, C., Chen, G., Chen, R., Chen, Y., Chen, Z., Chu, J., Claveland, C., Cockrell, R., Cox, C., Coyle, M., Cree, A., D'Souzal, Cleveland, C., Davy-Carroll, L., De Anda, C., Dederich, D., Delgado, O., Denson, S., Deramo, C., Ding, Y., Dinh, H., Divya, K., Draper, H., Dugan Rochs, S., Dunn, A., Durbin, K., Duval, B., Eaves, K., Egan, A., Escotter, M., Eder, K., Garta, M., Erals, T., Fan, G., France, C. M., Carta, M., Hernandez, R., Haladun, S. L., Handler, C., Hamilton, K., Harnandez, R., Hines, S., Hladun, S. L., Handler, C., Hamilton, K., Harnandez, M., Mult, S., Khan, Z., King, L., Koyar, C., Kraff, C.L., Labow, H., Lordon, P., Longacre, S., Lopez, J., Liu, J., Liu, M., M., Liu, Y., Loulseged, H., Lozdon, R., Martin, R., Martin, R., Mayulma, P., Martin, K., Martin, R., Martin, M., Man, M., Martin, M., Martin, M., Man, M., Martin, M., Martin, M., Martin, M., Martin, M., Martin, M., Man, M., Martin, M., M
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Submitted (31-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 142758)
Rat Genome Sequencing Consortium.
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Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap: version 0.990329
Consensus quality: 63896 bases at least 040
Consensus quality: 69524 bases at least 020
Consensus quality: 73620 bases at least 020
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2 (bases 1 to 142758)
Worley, K.C.
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AUTHORS
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AUTHORS REFERENCE

COMMENT

* NOTE: Estimated insert size may differ from sequence length

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(see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html). NOTE: This is a 'working draft' sequence. It currently consists of 74 contigs. The true order of the places is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the flnished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                 1: contig of 1051 bp in length
1: gap of unknown length
2: contig of 1271 bp in length
2: gap of unknown length
5: gap of unknown length
6: gap of unknown length
6: contig of 1011 bp in length
6: contig of 1011 bp in length
7: gap of unknown length
7: contig of 1011 bp in length
7: contig of 1445 bp in length
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f unknown length
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contig of 1045 bp in length
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gap of unknown length
contig of 1095 bp in length
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unknown length
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1 (bases) 1.0 (291) Johnson, E. M. Jr., Milbrandt, J.D., Kotzbauer, P.T. and Lampe, P.A. Persephin and related growth factors Patent: US 6232449-A 176 15-MAY-2001;
                                            (Dases 1 to 291)

Johnson, E. M. Jr., Milbrandt, J.D., Kotzbauer, P.T. and Lampe, P.A. Persephin and related growth factors
Patent: US 6233449-A 174 15-MAY-2001;
Location/Qualifiers
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Pred, No. 5.8e-24;
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Pred. No. 8.8e-25;
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Johnson,E.M. Milbrandt,J.D., Kotzbauer,P.T. and Lampe,P.A.
Persephin and related growth factors
Patent: US 6232449-A. 107 15-MAY-2001;
Location/Qualifiers
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Johnson, E. W. Jr., Milbrandt, J. D., Kotzbauer, P. T. and Lampe, P. A.
Persephin and related growth factors
Patent: US 6232449-A 86 15-MAY-2001;
Location/Qualifiers
    361 GGGCCCTGCTGCCGGCCCACTCGCTACACCGACGTGGCCTTCCTCGATGACCGCCACCGC 420
                196 TGCCAGCTGTGGAGCCTGACCCTGTGGCAGAGCTAGGCCTGGGCTACGCCTCAGAG 255
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   Length 273;
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   39.6%;
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